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Industry and Academics

Dan Rucker

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Rochester Institute of Technology

College of Imaging Arts and Science
School of Design
Industrial Design, Thesis Committee

**1 Lomb Memorial Drive
Rochester, NY 14623**

Dan Rucker
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Sellersville PA, 18017
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Dear Thesis Committee,

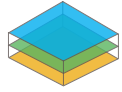
It is with great pride that I present my final thesis submission. This is a project that I have put aside while professional work has taken precedent. Completing my thesis is still a paramount accomplishment I must fulfill. My coursework has been complete and paid for a few years and the design knowledge gained and inspiring educational atmosphere that I was exposed to has pulled me continually back to completing this work. It's a life goal for myself, and for the good of my design career.

I was able to build a partnership with Herman Miller and RIT while I worked in R&D at the organization. The metaproject04 effort offered myself and my team an unprecedented way of modeling design management techniques and connecting two well-established entities in a way that felt like a natural fit for both. This collective work embodies my thesis submission.

I am available to speak or formally present this work if required. My time is well spoken for with my professional work, but I'd be happy to set aside time to meet all requirements.

The following submission was a work-in-progress for several years. Now complete, I request your review.

Dan Rucker



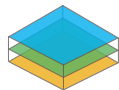
Thesis Submission

ABSTRACT

My thesis contains the story of the design management and programming of a major industry design manufacturer and a group of college students.

I was able to build a partnership with Herman Miller and RIT while I worked in R&D at the organization. The metaproject04 effort was what myself and my design team members at Herman Miller were involved in, allowing myself to model design management techniques and connecting two well-established entities in a way that felt like a natural fit for both. The stories of the process and challenges, including the end result work embodies my thesis submission.





Thesis Submission

TITLE PAGE

Industry and Academics

by Dan Rucker

A Thesis Submitted in Partial Fulfillment of the Requirements for the Degree of
Master of MFA in Industial Design

School of Design, College of Imaging Arts and Scients

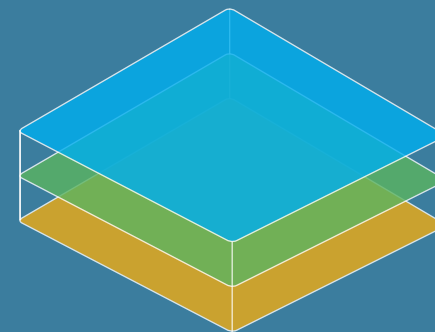
Rochester Institute of Technology Rochester, NY
August, 20th, 2017

Committee:

Stan Rickel, Thesis Advisor
Josh Owen, Professor, Thesis Advisor

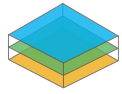


Industry and Academics



Thesis Submission:

An applied partnership and design management project between RIT industrial design student talent and Herman Miller, an industry leader and global design manufacturer.



Thesis Submission

Table of Contents

The submission is segmented into eight sections; some are text-based while other are strictly dedicated to photographic images.

01- Statement

02- Objective

03- Team

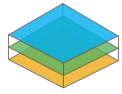
04- Project Overview

05- Procedure

06- Strategy

07- Gallery

08- About



Statement

“This thesis deliverable is not about a single, tangible, objective product, or a carbon-based object wrapped in a marketing message I personally created. This submission tells the story of a design program, rather than a product. Design can be an applied style of management. It’s an addition to a way of thinking. For some, design is how you live your life. Design is what sparks a reaction from a designer to do, or to think. This thesis submission explores the leadership and guidance required to drive a group of young, brilliant, student-designer minds to achieve a solution, and to ignite the desire to continue to design more for a better future.”

- ***Dan Rucker, Thesis Author***



Statement

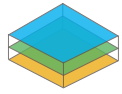
Remarks:

At Herman Miller I was humbled by the opportunity to work with world-class, independent design talent on a daily basis. We are constantly abandoning ourselves to allow these designers to lead us to new heights through their ideas and perspectives. The responsibility of the designer is paramount to our process, and it is through this dynamic relationship that we are able to create truly important, life-changing innovations together. This unique position within the design community has enabled our organization to grow and position ourselves as a leading design institution, never to be taken for granted. A part of honoring the design community as it exists today is investing in the future of it. This was at the core of my work with Herman Miller and RIT.

I see opportunities like Metaproject04 as a way for us to educate and inform students about what it means to be a designer. We do not seek to treat the students like students, but rather as designers on an equal playing field as those with years of industry leading experience. This is the only way that the gravity and weight of the responsibility as a designer can be fully conceived, and a designer can realize their gifts. It was my goal to support the growth of these gifts and teach these young designers about what it means to change a life, or accomplish something truly important through their work- an uncommon opportunity for designers at this stage in their development.

The charter for the metaproject04 assignment was deeply tied to our beliefs and tenets as an organization: To always remain grounded in human-centeredness. To be purposeful. To have integrity. To be original. And, to maintain the spirit and beauty of what embodies both the Herman Miller and Metaproject brands.

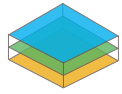
I am deeply thankful for this opportunity to teach and be taught by these gifted young designers.



Objective

Clear Goals

Every project begins with a clear objective: assess the factors and the variables, and work through scenerios to prepare for actualized work.



Thesis Submission

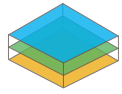
Objective

A mutually-beneficial collaboration:

As design manager and project lead, my objective was to inspire a global design manufacturer and major organization with the fresh ideas, spirit, and unencumbered talent of the RIT industrial design students. The potential was limitless. Our intent at Herman Miller was to provide a realistic and beneficial experience that applied the constraint, rigor, and developmental execution as an educational opportunity for the design talent at RIT. The driver was the potential of a commercialized product in the end.

Josh Owen, the course instructor for the project and a renowned industry figure in design and academics, remained a constant influence with his coaching, guidance, and expertise as the instructor for the project. The course title, metaproject04, was Owen's 4th project with a similar objective. Josh and Herman Miller team members codesigned the project to fit within his already successful pedagogical style.

Herman Miller
+
R·I·T



Thesis Submission

Objective

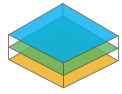
A Personal Mission

I wanted Herman Miller to connect and expose themselves to a true design program with the complete and robust curriculum and resources of a large school. I knew it would inspire them. RIT was the perfect fit and metaproject04 was the ideal platform to work together because it had structure.

My time at RIT was unmatched. I matured as a designer and a thinker. I was surrounded by incredible faculty and student peers. I will enthusiastically continue to recommend RIT to other students. Following my endorsement, Herman Miller employees have also pursued design degrees at RIT.

The design team and the community at Herman Miller felt like family, similar to RIT's "family" of other peer-designers. It was my mission that the two be connected.

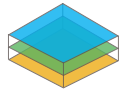
Herman Miller
+
R·I·T



Team

A Collaborative Effort

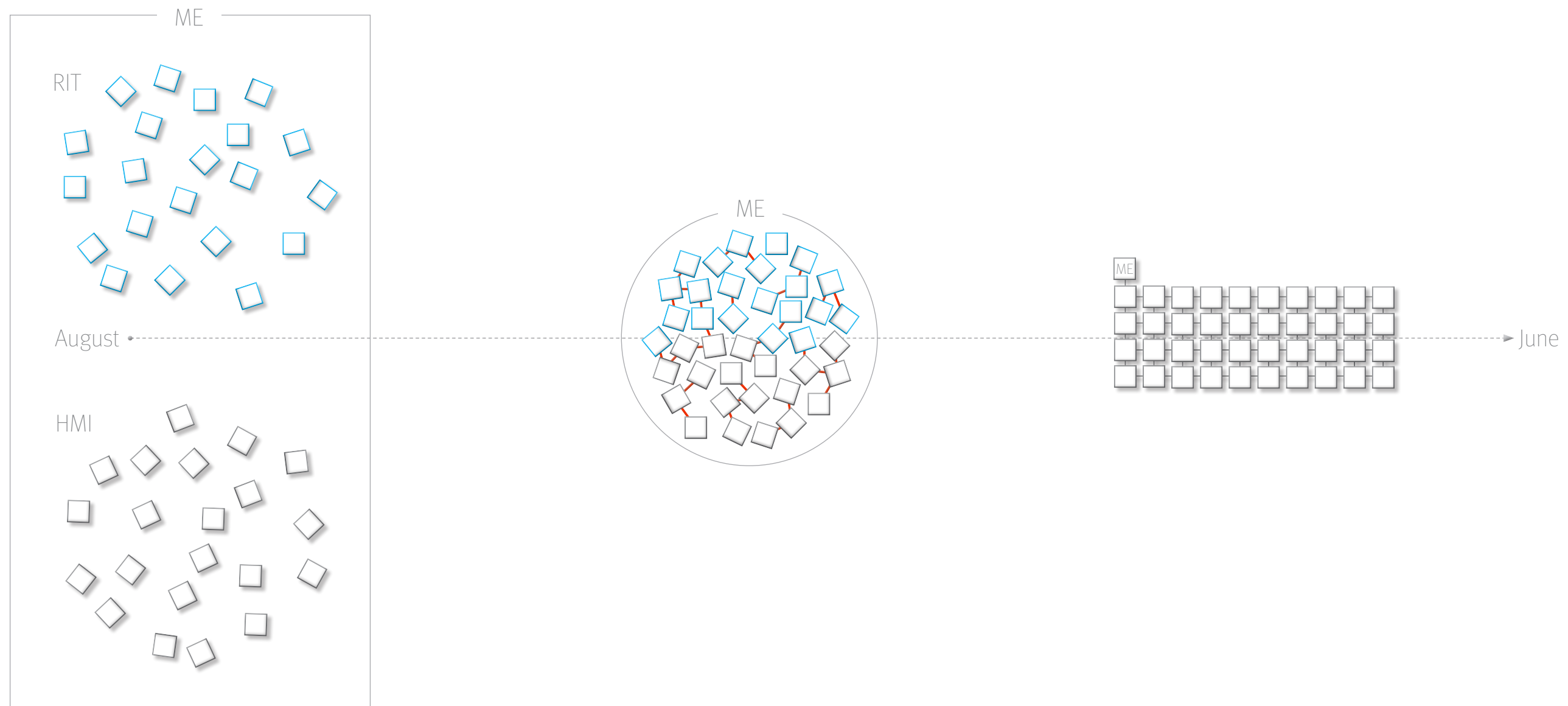
This project had lots of moving parts. There were 20 students, an instructor, a TA, an ASL interpreter, and our entire Herman Miller team as well. The project touched many lives.

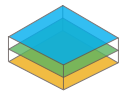


Thesis Submission

A Blend of Industry and Academics

Mixing RIT with Herman Miller was a process. We needed to blend the expertise of Herman Miller in with the expertise that RIT and students already brought to the table. The goal was to establish a tightly-bonded, large team all working together and communicating.





Thesis Submission

Student-Designers

20 Industrial Design student-designers, under the instruction of Josh Owen, worked with Herman Miller. Each brought a unique point of view. I'm including full names for project posterity.



Heather Allen



Alexander Bennett



Killian Castner



Ariel Christopher



Joe Colleran



Ryan Fox



Edward Fry



Emily Gammon



Maritza Garcia



Kat Given



Ramsey Haefner



Tony Han



Stephanie Lawrence



Richard Luo



Oscar Rodriguez Sosa



Alexander Romeo



Tal Rosenblum



Gino Santaguida



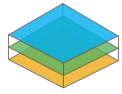
Kyle Sheth



Kyra Wilson-Houck



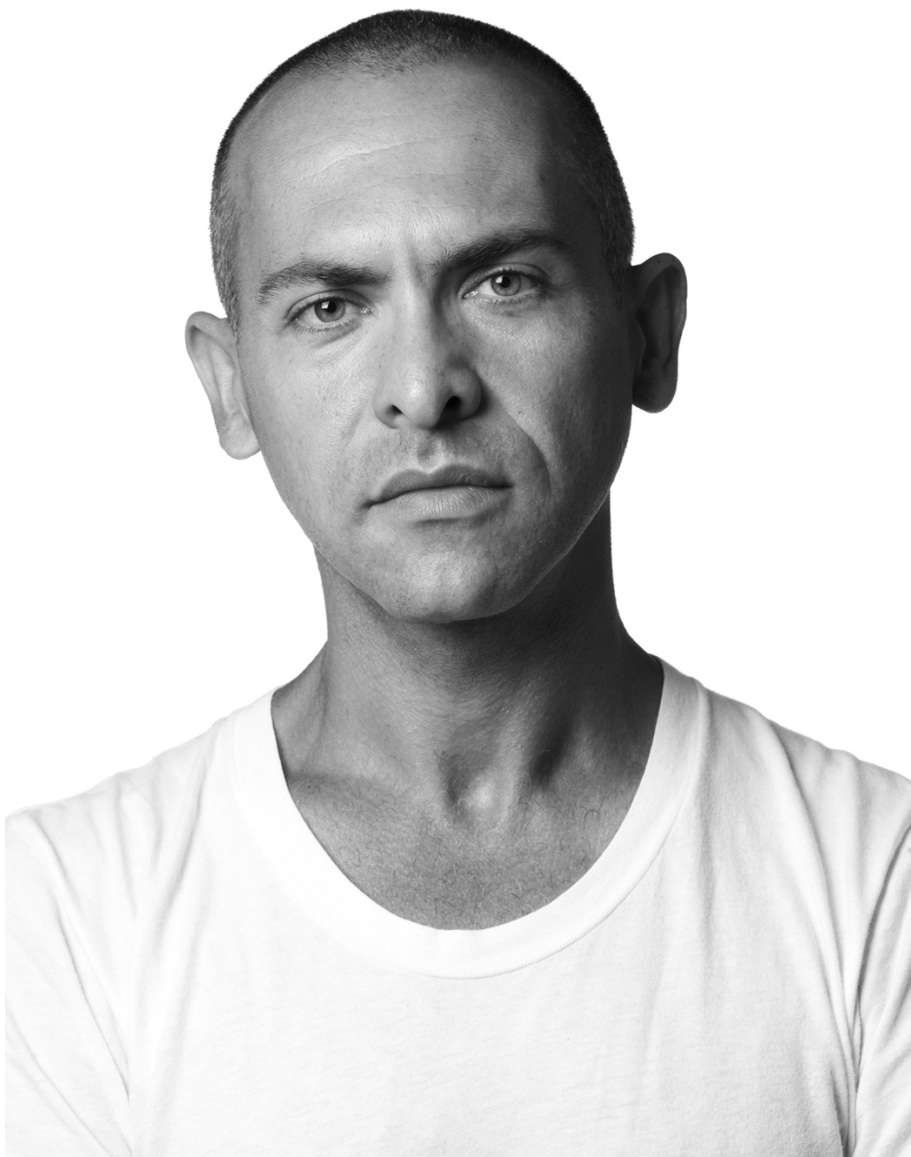
Bridget Sheehan- TA



Thesis Submission

Course Instructor

A true blend of design educator and practitioner, Josh was the perfect partner to work with Herman Miller.



Josh Owen

Josh is the President of his design studio, Josh Owen LLC. He is also a Full Professor and the Chair of the Industrial Design Department at the Rochester Institute of Technology, where he teaches in both the graduate and undergrad areas, developing programming across disciplinary lines, most notably under the umbrella of the newly formed Vignelli Center for Design Studies.

Prior to joining the faculty at RIT in 2010, Owen held the title of Associate Professor and Craig R. Benson Chair for Innovation at Philadelphia University, where he spent ten years teaching while concurrently maintaining his studio practice. From 2008-2010 Owen was also a Lecturer in the Graduate Department of Architecture at The University of Pennsylvania's School of Design, where he developed programming that served the Design, Engineering and Business Schools under the umbrella of Integrated Product Design.

Owen's client list includes such notables as Areaware, Casamania, Kikkerland, Kontextur, Loll, OTHR and Umbra. His projects are included in numerous books on design and are regularly featured in such international media platforms as as Abitare, Artravel, Azure, Bloomberg, Blueprint, Casavivia, Clear, Core77, Designboom, Designmilk, Domus, Dwell, Elle, Graphis, Fast Company, Frame, Icon, Interni, Intramuros, Lucky, Luna, Maison Francaise, Metropolis, Metropolitan Home, Ottagano, Readymade, Surface, Vogue, Wired, as well as The Chicago Tribune, The New York Times, The Wall Street Journal and The Washington Post.

Owen has been the winner of six Chicago Athenaeum Good Design Awards. He has also been the recipient of the ID Annual Design Review Award, the International Design Award, as well as nominations for the Chrysler Award for Innovation in Design, the Athena Emerging Designer Award and an honorable mention for the Red Dot Design Award. He has shown his furniture, lighting and product designs in numerous solo and group exhibitions. Owen's work is included in the permanent design collections of the Centre Georges Pompidou in Paris, the Chicago Athenaeum, the Corning Museum of Glass, the Denver Art Museum, the Musee des Beaux-Arts de Montreal, the National Museum of American Jewish History, the Philadelphia Museum of Art and the Taiwan Design Museum in Taipei among others.

Josh Owen was born in the United States in 1970. The son of an archaeologist, he spent the summers of his youth on excavations in the Middle East learning from direct observation and participation in the mining of history through the lens of its material remains. Owen holds a BFA in Sculpture and a BA in Visual Studies from Cornell University and an MFA in Furniture Design from the Rhode Island School of Design. He has also studied at Tel Aviv University and Cornell University's program in Rome.

Owen's studio practice is located where he lives in a small village a few miles down the Erie Canal from his office at RIT. He is the author of the book Lenses for Design.



Thesis Submission

Herman Miller Team

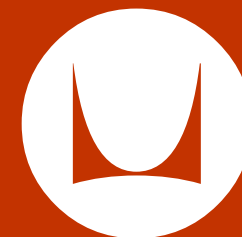
The Herman Miller design team is a thriving center for research, design, and innovation. With a transdisciplinary blend of expertise, the design team functions as an in-house laboratory for new ideas and future thinking. At any given moment, topics like design strategy, innovation, global research, technology, and business development are being tossed around. The design team solves complicated problems, and feeds our answers back into the companies knowledge pipeline.

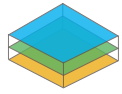
Direct Support Team Members:

- Dan Rucker, Technology and Design Strategist, Project Lead
- Chris Hoyt, Design Exploration Lead, Support
- Tony Rotman, Design Exploration Lead, Support
- Gary Smith, VP of Design, Sponsor

Other Herman Miller Resources:

- Prototyping Lab Experts
- Insight & Exploration Researchers
- Technologists
- Marketing and Brand Reps
- Showroom Management
- Product Management

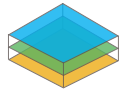




Project (Overview)

The High-level Information

The project was built upon a framework that was structured collectively. The design brief was written by me and I carefully considered real business constraints and goals. This was not a brief we only served to the students. This was simultaneously a challenge for Herman's Miller design team.



Thesis Submission

Project Overview

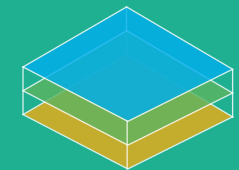
Relationships in the Workplace:

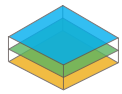
The new landscape of work is inherently global, and seamlessly digital. In it, any person can connect with any other person, information, ideas, or even a machine. Now, more than ever, we must apply a greater understanding of people - how we think, how we are motivated, and how we create and collaborate - to this new landscape of work. Doing this allows us to see a different approach to how we manage our work, the tools and technologies that enable us, and the places where we come together to do it. Herman Miller seeks a total experience of work that is more natural, more desirable, and, ultimately more rewarding.

Student-designers will address the factors and challenges associated with building and enhancing relationships in the workplace, whether that be in-person, digitally-mediated, or those that exist between people and their tools. Focusing primarily on the Living Office vision and Herman Miller's recent history, students debated the evolution of work and the current definition of a "relationship", and tested how furnishings and space empower and enable interactions that extend beyond a simple point of connection.

Primary focus should be placed on one of three relationship archetypes:

- Face to Face
- Digitally Mediated
- Human to Work Tools





Thesis Submission

Project Overview

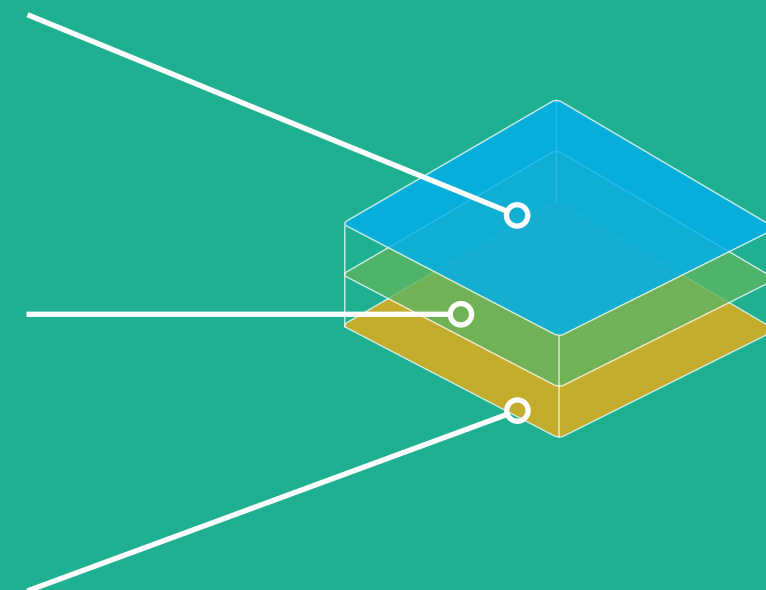
Relationships in the Workplace:

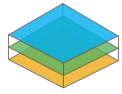
Primary focus should be placed on one of the three relationship archetypes listed below. However, solutions may cross-over to provide value to any and all of the three...

1) Face-to-Face: Still the default mode of interaction, this focus deals with how people come together to meet, chat, and collaborate when in the same location, and how this experience can be increasingly optimized to yield a more productive, enjoyable experience for those in-person.

2) Digitally Mediated: While still in its infancy, people are beginning to rely heavily on digital vehicles to supplement or replace interactions that typically occur in person. This focus considers both “ends” of the interaction, and is sensitive to the challenges and tumultuous nature of defaulting to a mode that, to most, still remains unnatural.

3) Human-to-Tools: As a greater portion of our workday is spent together with others, our time spent alone with our work tools increases in importance. Our tools are both digital and analog, and are very intimate to our work behaviors. Understanding the relationship between people and their tools and how we accomplish tasks, generate content, and produce output, will give way to solutions that address these activities.





Thesis Submission

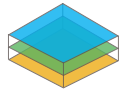
Project Overview

Face-to-Face

In an office, the greatest value comes when people are working together in a face to face mode. As Herman Miller, we want to promote this kind of work, and maintain the relevance and importance of the workplace serving as a hub for interactions between people.

As student-designers, they were encouraged to focus on traditional settings like meetings, chats in a lounge, a quick “hi” in a lobby, a snack with a friend, and hallway pass-by that leads to a work conversation. These scenerios provided a floor and a ceiling for the designers, and placed them squarely in the middle of these face-to-face interactions because they live them everyday with peers.

In an academic setting, a studio is an office. It functions much like an office does where you have students as workers and instructors as bosses. These student-designers participate in these kinds of interactions every day with one another and their instructors. The goal was to draw out the design thinking-potential from them.



Thesis Submission

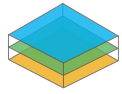
Project Overview

Digitally Mediated

There's a reason why toddlers know how to use FaceTime. The future of interaction is in how we use technology to augment or enhance how we work as humans. Being on video will be a normal, constant occurrence, and people will adopt new forms of habits and rituals that exist in these modalities.

The consultant designer talent pool for Herman Miller is broad but focused on furniture. To some, it's less clear how the office as a space is rich with video or any sort of tech augmentation, yet. We used the student designers as a test-bed accelerator for ideas in this space. We knew we wouldn't get targeted thinking about video interaction from our designers who craft with wood and fabrics.

We needed to bolster our stable of design talent to combine new and fresh, with tried and true.



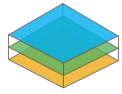
Thesis Submission

Project Overview

Human-to-Tools

It's easy to assume that when we say "tools" we mean "mobile devices". In actuality, there are still several analog work tools that are still prevalent and driving how businesses function, paper being the biggest.

I wanted to temper the desire for students to design the next best smartphone FaceTime stand, although we didnt deem it unacceptable. I urged the student designers to think about all objects in an office, even the small things that you dont encounter often. But when you do, they are meaningful. I was pleased with their adaptations to those bounds.



Thesis Submission

Project Overview

metaproject 04

The term “Metaproject” is designed to be used as a thematic umbrella referring to an industry partnership which places the student output into a global venue. In the case of Metaproject 04, the partnership was with HMI and the venue for the student output was the 2014 International Contemporary Furniture Fair in New York City.

A case study book was generated and self-published which chronicles the process and products produced during the course, shedding light on design process. This item will be used strategically to simultaneously present and promote student work and the mission of the program. In addition, various related industry publications and platforms will be targeted as ancillary venues for communicating the student research. The “Design is One” philosophy espoused by the Vignelli Center for Design Studies was overlaid into the conversation of the Metaproject studio in order to make use of modernist ideological foundations in practice.

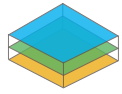
metaproject 04



Procedure

The Details

This is a breakdown of what the thesis project and metaproject04 looked like. It covers the coursework and RIT's side of the equation, as well as Herman Miller as the partner to RIT.



Thesis Submission

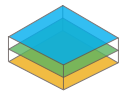
Procedure

How the project functioned:

The project functioned as a competition. Final results were judged by a team of HMI representatives. At the time of the final presentation, the jury decided how many of the projects would be further developed for presentation in New York City at ICFF.

The result was a set of solutions that address relationships, and the challenges, problems and complexities often created today by varying cultures, social norms, and behaviors, in both a physical and digital context.

We required that, to properly answer the brief, the projects must follow the ten Herman Miller Design Tenets and be well crafted. Functional prototypes should be clean and complete. The finalist's projects were developed in house by Herman Miller R&D, and brought to New York City and displayed at the 2014 International Contemporary Furniture Fair (ICFF). In addition to the ICFF exhibition, I organized an industry event at the Herman Miller showroom during NY Design Week to celebrate the outcome of the partnership.

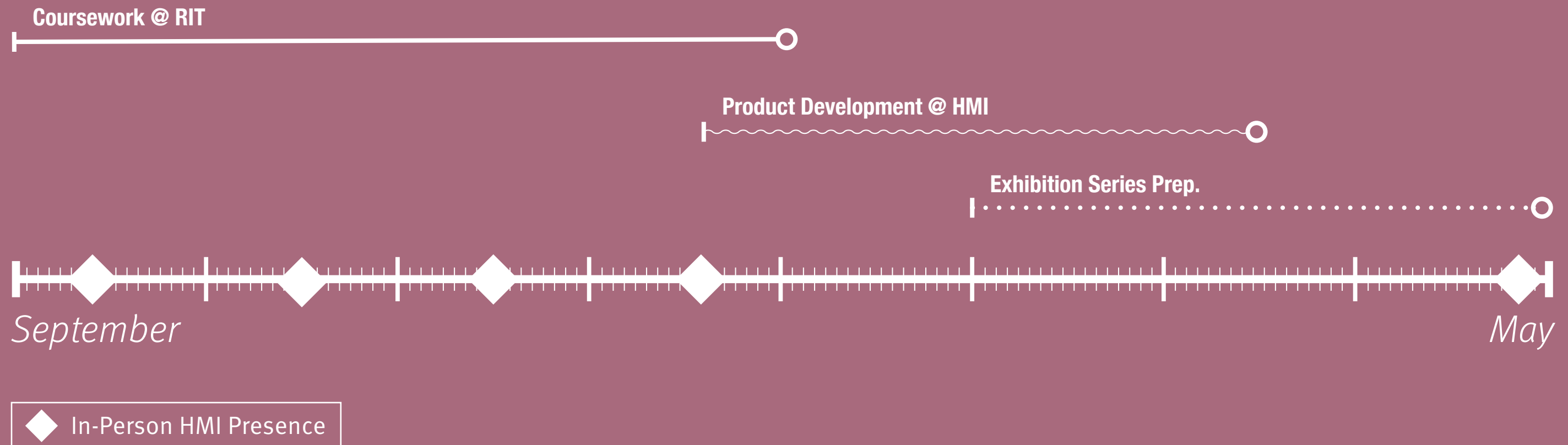


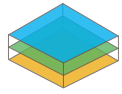
Thesis Submission

Procedure

Timing and Pace

It was top of mind that we were not paying designers for their time. However, we wanted to maximize the interfaces. We set up a kick-off, weekly chats between myself, students and instructors, in-person, interstitial check-ins with the team, quarterly visits, and a finalist series of events for both the student-designers and the Herman Miller team.



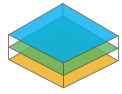


Thesis Submission

Procedure

Coursework at RIT

- WEEK 01- INTRODUCTION
- WEEK 02- RESEARCH
- WEEK 03- RESEARCH | STRATEGIC PLANNING
- WEEK 04- RESEARCH | CONCEPT DEVELOPMENT
- WEEK 05- RESEARCH | CONCEPT DEVELOPMENT
- WEEK 06- CONCEPT DEVELOPMENT | ANALOG MODELING
- WEEK 07- ANALOG MODELING | DESIGN DEVELOPMENT
- WEEK 08- DESIGN DEVELOPMENT | MID REVIEW
- WEEK 09- DESIGN DEVELOPMENT | ANALOG MODELING
- WEEK 10- DESIGN DEVELOPMENT | ANALOG MODELING
- WEEK 11- DESIGN DEVELOPMENT | ANALOG MODELING
- WEEK 12- DESIGN DEVELOPMENT | ANALOG MODELING
- WEEK 13- DESIGN DEVELOPMENT | FABRICATION
- WEEK 14- FABRICATION
- WEEK 15- FABRICATION | DESIGN COMMUNICATION
- WEEK 16- DESIGN COMMUNICATION
- WEEK 17- FINAL JURIED EVENT | PRESENTATION



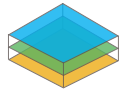
Thesis Submission

Procedure

Product Development at HMI

At Herman Miller in Holland Michigan, the research team was vetting the design concepts and providing live feedback to the student designers. The new product development engineers were investigating material selections and construction, and the prototypers were printing, milling, and sourcing parts to meet the needs of the design concepts.

- STEP 01- RESEARCH SYNTHESIS AND BRAINSTORMING
- STEP 02- INSIGHTS PRESENTED TO DESIGNERS
- STEP 03- ENGINEERING CONSULTATIONS
- STEP 04- MODELING AND PROTOTYPING CONSULTATIONS
- STEP 05- CONCEPT TO PROTOTYPE DEVELOPMENT
- STEP 06- DEVELOPMENT OF PROTOTYPICAL PARTS AND MATERIALS
- STEP 07- ASSEMBLY AND CONSTRUCTION OF PROTOTYPES
- STEP 08- FINISHING



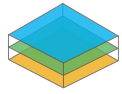
Thesis Submission

Procedure

Exhibition Series Preparation

The International Contemporary Furniture Fair is an annual design festival held at the Javits Center in New York City. The 25th show gathering featured metaproject04. The students prepared their travel and exhibition arrangements and the Herman Miller team rallied around the completion of the prototypes.

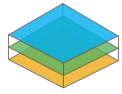
- EXHIBIT 01- PRESENTATION AT THE RIT INNOVATION CENTER
- EXHIBIT 02- EXHIBITION AND PRESENTATION AT ICFF
- EXHIBIT 03- SHOWROOM GATHERING FORUM DIALOGUE
- EXHIBIT 04- PRESS AND MEDIA



Strategy

Our Approach

It was unique for a manufacturer to work with a university and make it fruitful for the student designers while also not making it a pain-staking process for themselves. Here's how we did it.



Thesis Submission

Strategy

Design Management Model:

We knew we were working with students who would be eager to impress a global design manufacturer and it's team of R&D experts. It was important to share our stories about industry failures, conceptual work scrapped, and prototypes failing on a daily basis. The failure is a part of the design. With each break, we learn and build confidence.

The tangibility of designing for Herman Miller can feel daunting. The key was to ease the students toward simple, pragmatic, and intuitive designs that were full of inherent value and required little complexity in their functional elements or general construction techniques.

Frequent check-ins and critique were a religious practice during the projects. Group, as well as 1:1 coaching occurred between myself, Herman Miller team members, and the student talent. Steering the student-designers became a daily practice as they explored areas of opportunity and human need. In other phases, they worked with autonomy.

Grounding our opinions and our expertise in our research, operational knowledge, and design management was fundamentally key to the project's success. This was not a highly-exploratory effort that could take years. Our hypothetical outcomes were clear and we drove towards them in a short ammount of time.



Thesis Submission

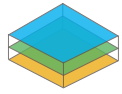
Strategy

Design and Development Strategy

We anticipated a lot of blue-sky design concepts. We were worried about these because they can take time to develop and sometimes the movement and mechanisms of complex designs don't come to life like the designer truly invisioned. It is because of this fact that you dont see an abundance of contraptions and mechanisms in an office. They pose quality and safety threats. Even some materials, like fiberglass, are considered irresponsible to work with on a mass scale.

With this in mind, we pushed specific fabrication techniques and material selections. We relentlessly suggested steel, aluminum, plastic, glass, foam, apolstery, laminate, and other common things you see associated with office products today. The beauty of a prototype is that it doesnt have to be perfect for 12 years like a commercialized product. It has no warranty, so if it can survive exhibits, photos, and videos. Then it served it's major purposes. Further, R&D would ultimately cover all angles if commercialized.

It was this thinking that drove a "maker" mentality to the engineers and prototypers at HMI. We didnt need to think about injection molding limitations because things could be 3d printed. We didnt have to consider the cost of an expensive material like felt because we only needed a few yards. This made the exercise a pleasure for everyone involved, and allowed the team to think expansively, like designers!



Thesis Submission

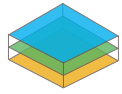
Strategy

Marketing, PR, Social Media

In some ways, if this project didn't make a splash among the press and the media, then neither university nor company benefited. More importantly, the student-designers don't benefit, and feel the ominous regrets that their designs weren't "good enough" or inspiring, or that the concepts didn't make sense to the masses. The masses are everything.

We wanted to take this matter into our own hands and do everything we could as HMI to support the necessary marketing and PR associated with metaproject04. The brand marketing team opened their arms to this effort, and extended me an offer to write about the project, to photograph the prototypes professionally in our own photo studio, to support the cost of the exhibitions, and to host a gathering in the showroom to draw more attention and media opportunity. We crafted personal invitations to Herman Miller VIPs in the area to attend the events and to support the student-designers throughout the week.

The WHY digital publication was new at the time, and articles and resource efforts were exclusive, in-demand, and highly-debated. We were able to have metaproject04 covered in WHY, including the contracting of an illustrator to add visualizations to the story.



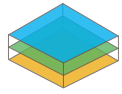
Thesis Submission

Strategy

Uncertainty

With a completely new partnership model at play, there was a fair amount of uncertainty and variables that we couldn't predict. We knew what needed to get done to get the project to a point of completion, but we didn't know what 'complete' would look like. We wrote a very thorough design brief that we treated like the guiding-light when we felt that one of the 20 student-designers was too divergent. Beyond that, we left it completely up to the student designers to independently research and convince us of their direction.

Having to inspire and create rapid movement among 20 students was new to me. I was lucky to have Josh Owen who was well aware of the potential pitfalls. The student-designers ultimately embraced all members of the Herman Miller team and saw them as mentors. Our goal was to foster a level of communication so I had plenty of opportunities to guide.



Thesis Submission

Strategy

Micro-Case Studies

An Eames Inspired Design

Charles and Ray Eames created an attractive design language to mimic. This language became stuck in the head of a student designer who was unable to move away from the use of bent plywood. The plywood material was driving conceptual thinking and was absent of problem solving.

Herman Miller “does not copy” so we assured the designer we would not accept a “mimic” or “knock-off” look. However, we highly encouraged the student to study the Eames and mid-century modern design philosophy. Problems were simpler then, and so were the solutions.

The designer ultimately moved away from bent plywood but retained the simplicity of the Eames leg-base design. A job well done.

Finding the Perfect Material

A student designer had devised an elegantly-simple deployable screen that would unfold and open itself not unlike a Japanese fan. The screen was used to delineate space and create visual privacy in an open space like a library table or testing environment, but at a small scale. A handheld scale. This product was a material challenge.

The material became the key element here. We worked with our color, material, and finish team to research what materials were durable enough to exist in an office, but still maintain the elegance of the student’s design intent.

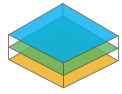
The solution was a high-end self tightening window shade that could be hacked in design to fashion the privacy screen. A prototyping challenge: Solved.

All Things are Digital

In one case, a student designer hit a block, and began to question the necessity of more physical furniture-like products.”Why do we need more chairs?”. He asked us a great question.

He beleived that the future of a human interaction with their tools would be digitally facilitated. That an app or a layer of software would drive work behavior.

We encouraged this path. We understood that furniture is not only physical,- all things are digital today and will continue to be. We asked the student designer to explore the idea and develop the UX to an on-screen experience that would feel similar to the software or app that he saw solving problems in the workplace. The designer ultimately did a wonderful job.



Thesis Submission

Strategy: Thought Starters

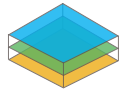
The student designers were provided with reading material, web publications, and archival literature to study the workplace and build their case for a sound design. Founded in these resources, were the following themes:

Cognition

Understanding the state of mind and personality of individuals is a critical step in developing solutions. Demography greatly affects culture and influence each individual worker differently. The human mind controls perceptions and expectations, which create user needs and present opportunity for good design. Reducing cognitive burdens through a system of improved conditions is a desired outcome of the thesis study.

Interaction

Workers are interacting and interfacing with people and things constantly. Human-to-human and human-to-computer interactions broadly define the make-up of work. Improving the interactions that occur during work will directly affect worker performance, reduce cognitive load, and establish buy-in on culture. Not to be overlooked is the increasing shift towards humans and technology. Interfacing in new ways with new devices is going to continue to be a trend in creating work experiences.



Thesis Submission

Strategy: Thought Starters

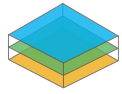
Themes, cont'd

Environment

The physical environment holds the most intimate relationship to the worker. Although new tools help to augment this need, humans still desire to be aligned and accommodated in the work place. Beyond comfort, humans often seek environments that optimize their performance. An emerging extension of ergonomics- digital ergonomics- is a new set of design principles that reduce cognitive load and build a stronger physical relationship with the worker and their workspace.

Tools

Humans have always needed tools to accomplish tasks. Technology is now an ambient layer and humans expect that their needs can be met through the use of this layer. In some scenarios, this layer is required to accomplish task. Understanding how technology and other work tools impact the cognition of the worker and facilitate interaction will inform the ultimate design strategy. Evaluating what specific technologies are used, and how they can be properly arranged and implemented, is a variable of understanding how workers can benefit from using technology and other tools.

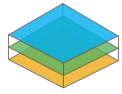


Thesis Submission

Thought Starters

Books:

- Workspheres, Antonelli. Paola. MoMA
- The Ice Palace That Melted Away: Restoring Civility and Other Lost Virtues to Everyday Life, Stumpf, Bill.
- Designing Design. Hara, Kenya.
- The Vignelli Canon. Vignelli, Massimo.
- Less and More, Design Ethos of Dieter Rams. Kemp, Klaus. Die Gestalten Verlag
- Muji. Morrison, Jasper. Rizzoli
- Naoto Fukasawa. Fukasawa, Naoto.
- Product as Landscape. Hecht, Sam. Industrial Facility
- Super Normal: Sensations of the Ordinary. Morrison, Jasper.
- The Office, A Facility Based On Change. Propst, Robert.
- I Miss My Pencil. IDEO Design Firm.
- Gamify. Brian Burck/ Gartner
- Herman Miller, SPIRIT. Print Versions, HMI
- Herman Miller, WHY. Print Versions, HMI



Thesis Submission

Strategy: Thought Starters

Websites:

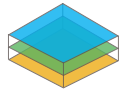
- www.hermanmiller.com
- www.maharam.com
- www.geiger.com
- www.nemschoff.com
- www.eamesoffice.com
- www.wired.com
- www.fastcodesign.com
- www.contract.com
- www.metropolis.com
- www.workdesign.com
- www.core77.com
- www.designboom.com
- www.kickstarter.com
- www.fuseproject.com
- www.steelcase.com
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- naughtone.com
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- www.bassamfellows.com
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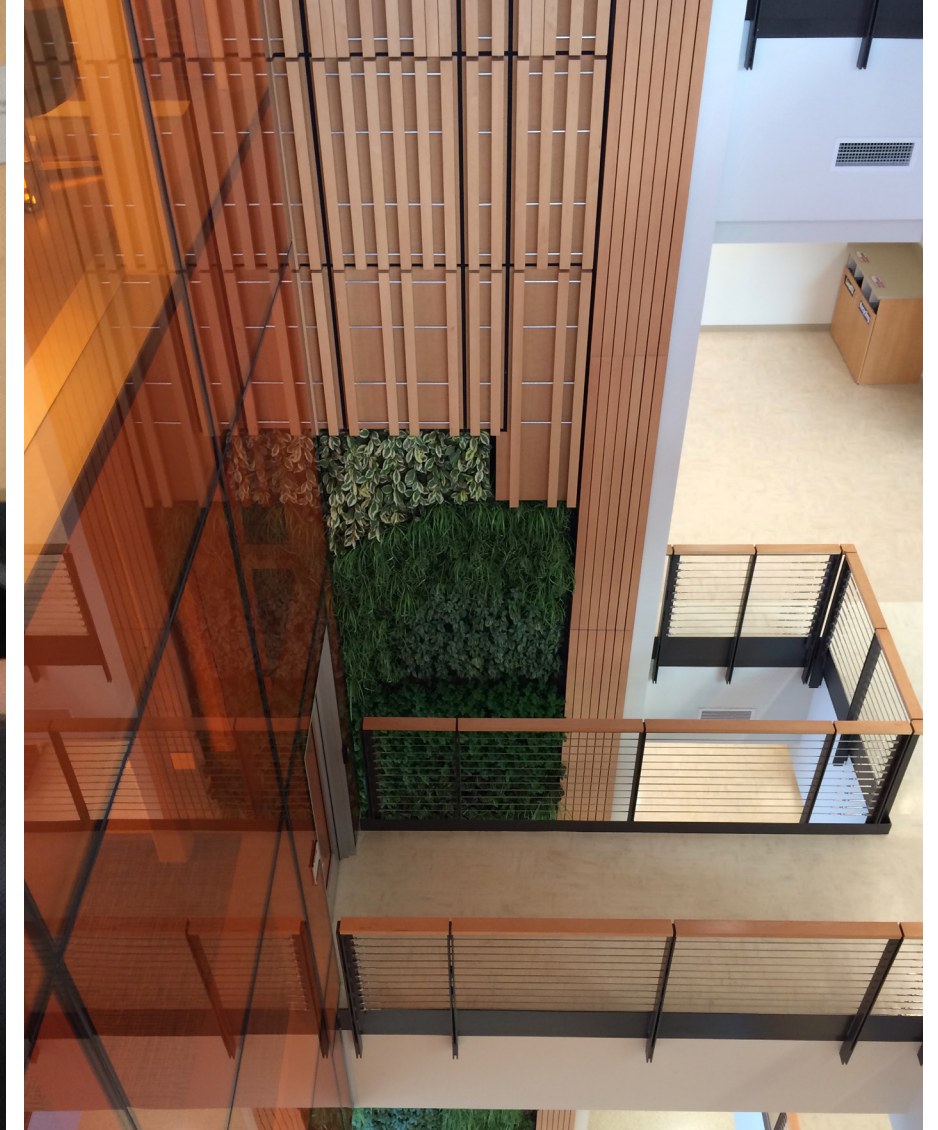
Gallery

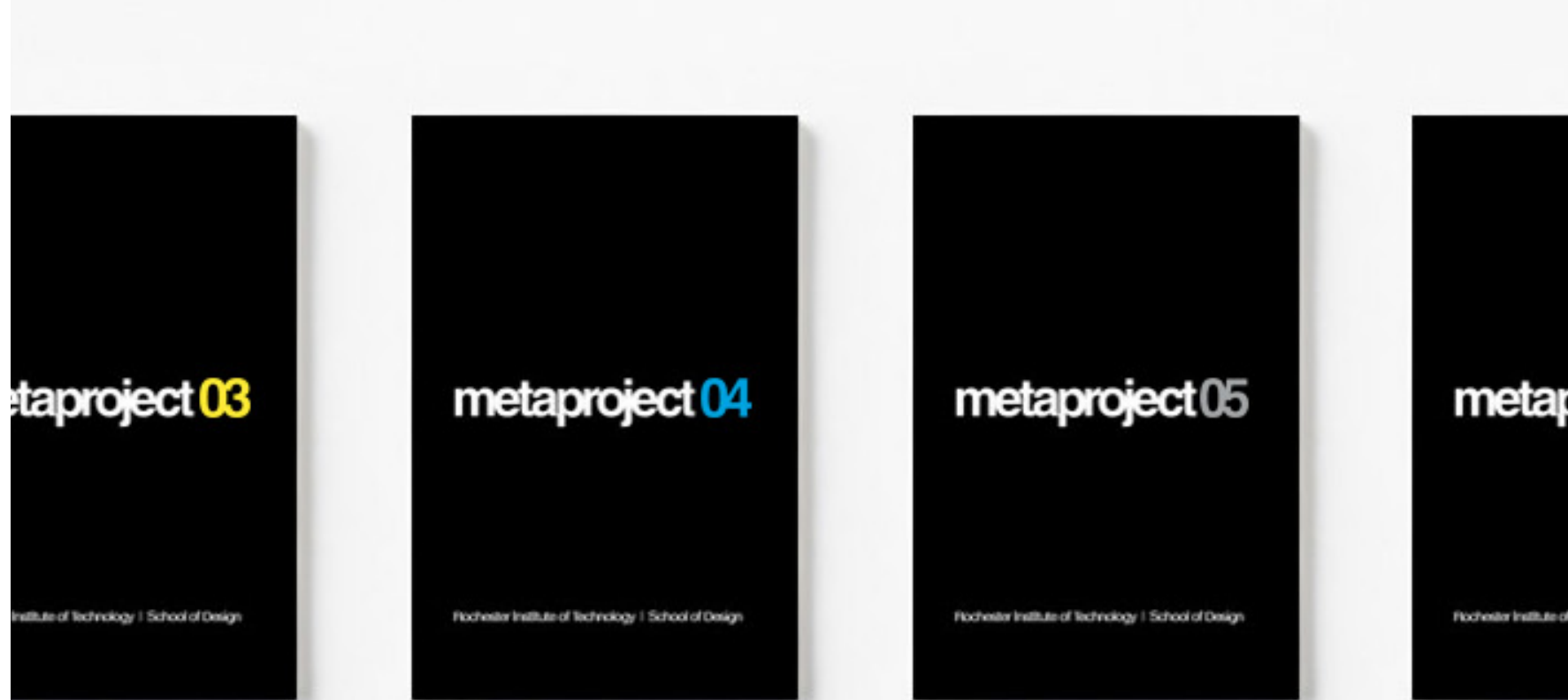
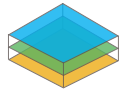
A Visual History

The next several pages are dedicated to visuals. Some of these experiences are better seen than read about. Therefore, I've opted to include several pages of images that encapsulate the entire experience. All of my earlier references can be spotted here.

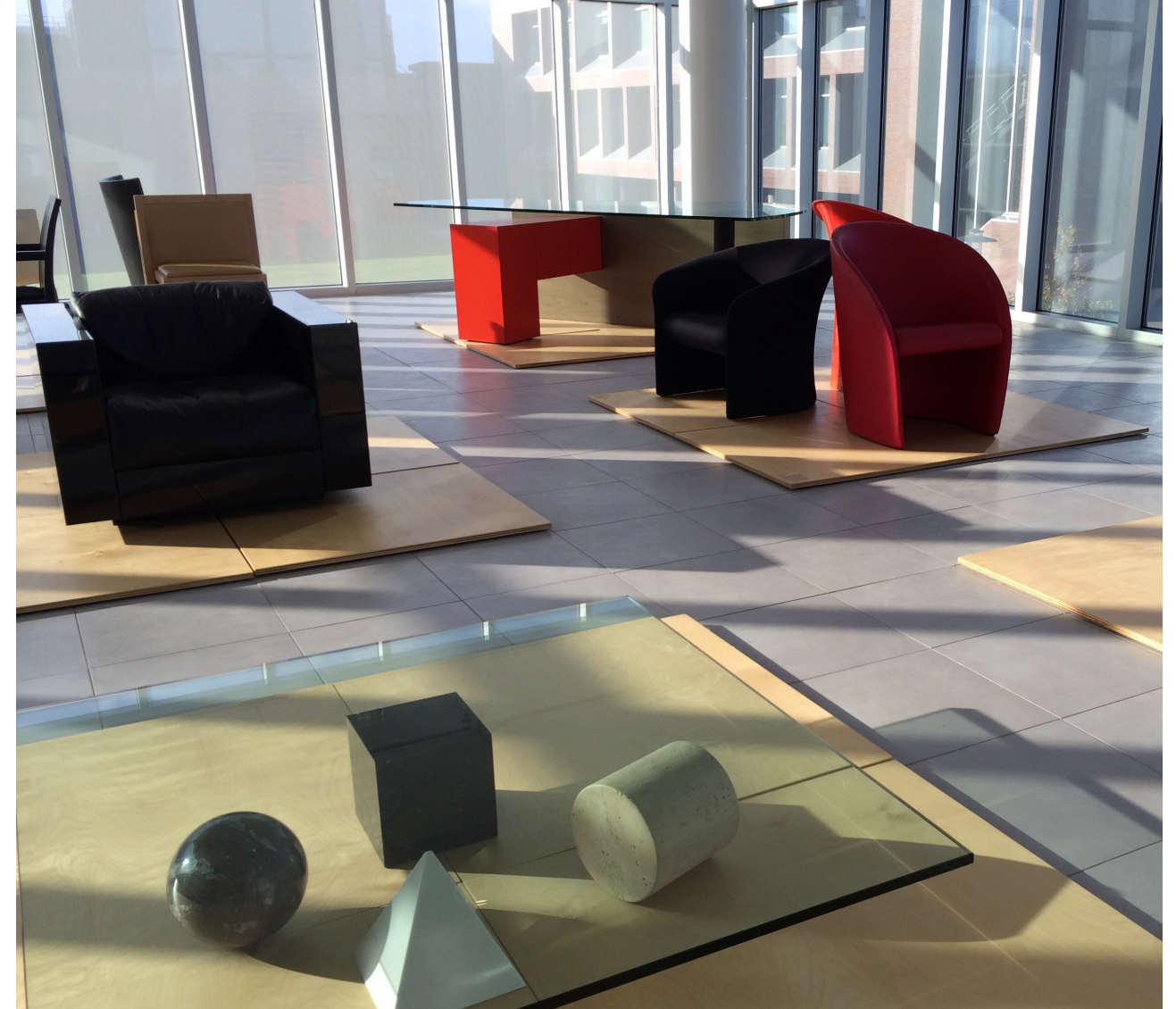


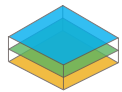
Herman Miller team members including VP of Product Design, Gary Smith, visited the campus to kick off the project with the students, tour new buildings and the beautiful Vignelli Center.



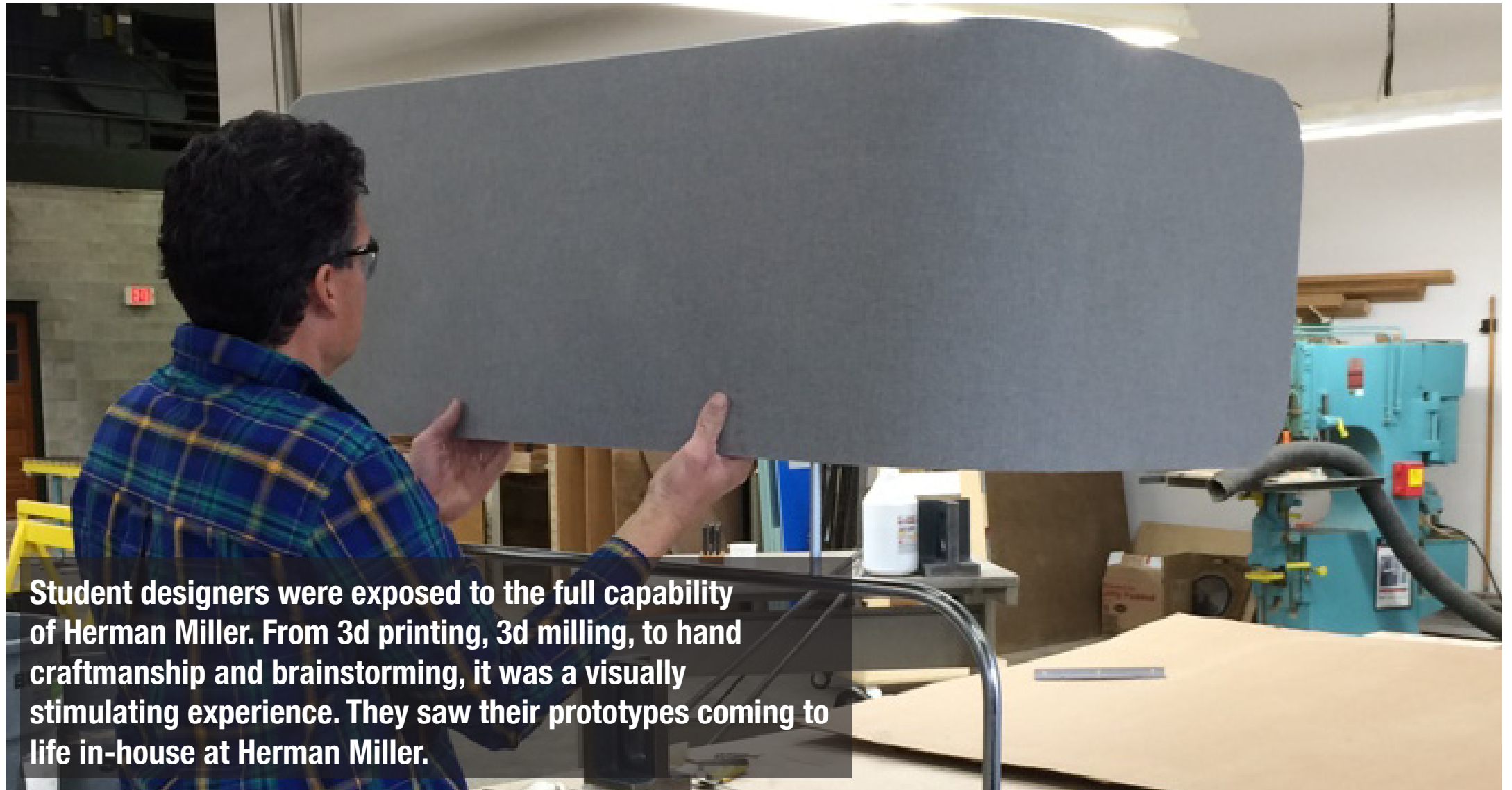
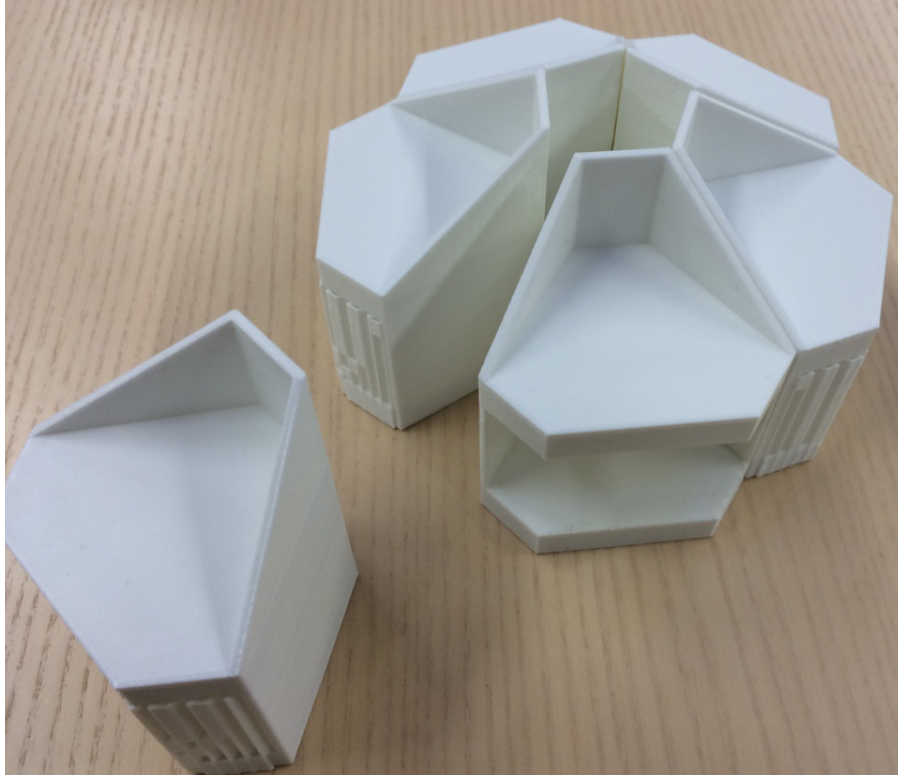
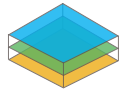


The Vignelli archive revealed the work from previous metaprojects and the plans for the future of the archive itself. It was great timing, given Herman Miller's involvement in building a new archive for themselves.

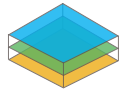




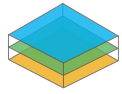
The student designers visited the Herman Miller Design Yard to see first-hand how innovations are brought to market. They interfaced with their prototypes and new product engineers for insight gained.



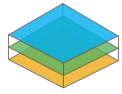
Student designers were exposed to the full capability of Herman Miller. From 3d printing, 3d milling, to hand craftsmanship and brainstorming, it was a visually stimulating experience. They saw their prototypes coming to life in-house at Herman Miller.



A finalist designed a space where you can work, meditate, rest, or sit. The standing height work surface allows a cozy bench to slide underneath to provide a dwelling-like experience in the office



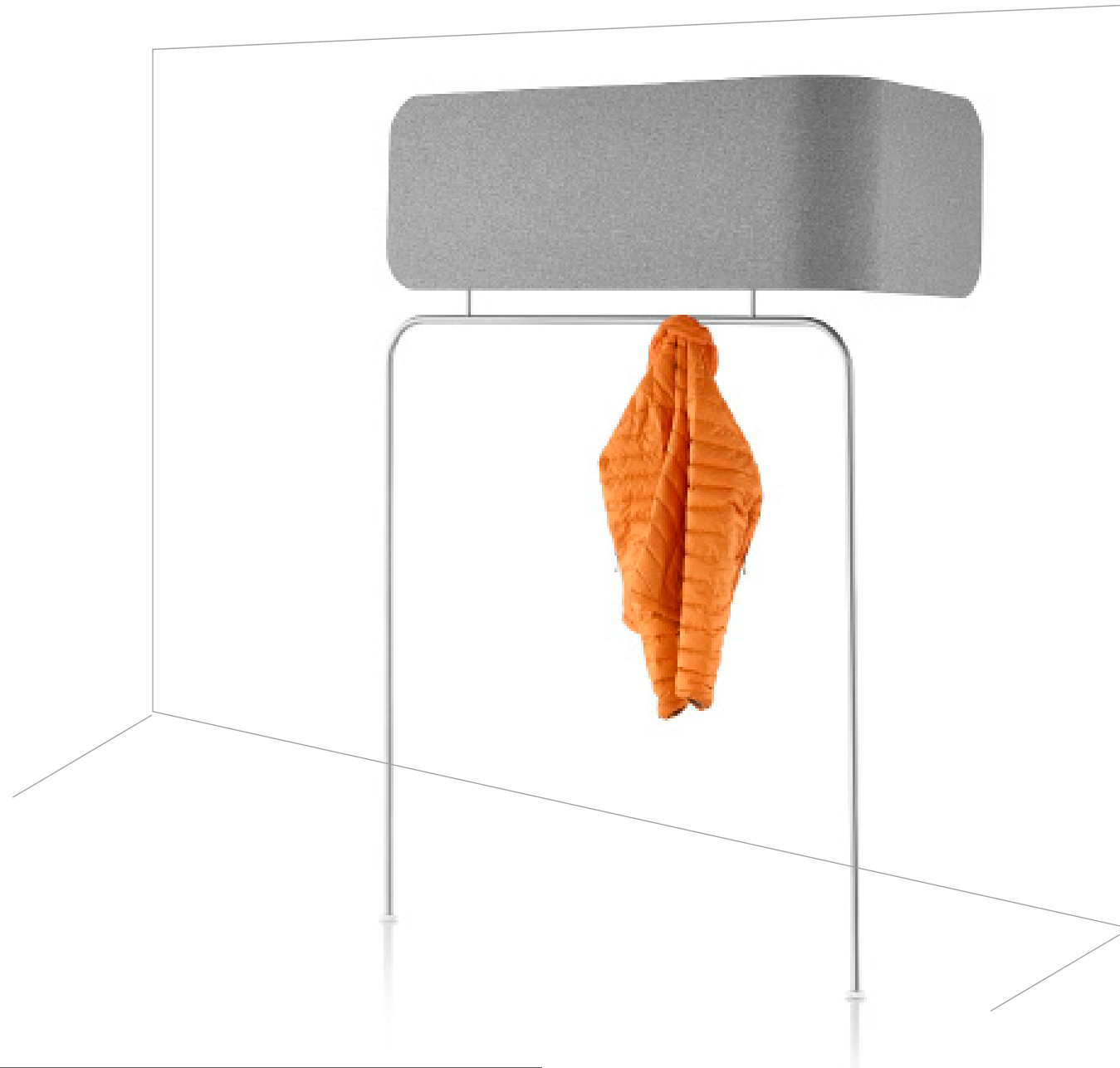
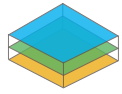
A modular storage concept made of lightweight materials for easy mobility and collaboration. You can use them as stools, occasional tables, and cubbies for personal belongings.



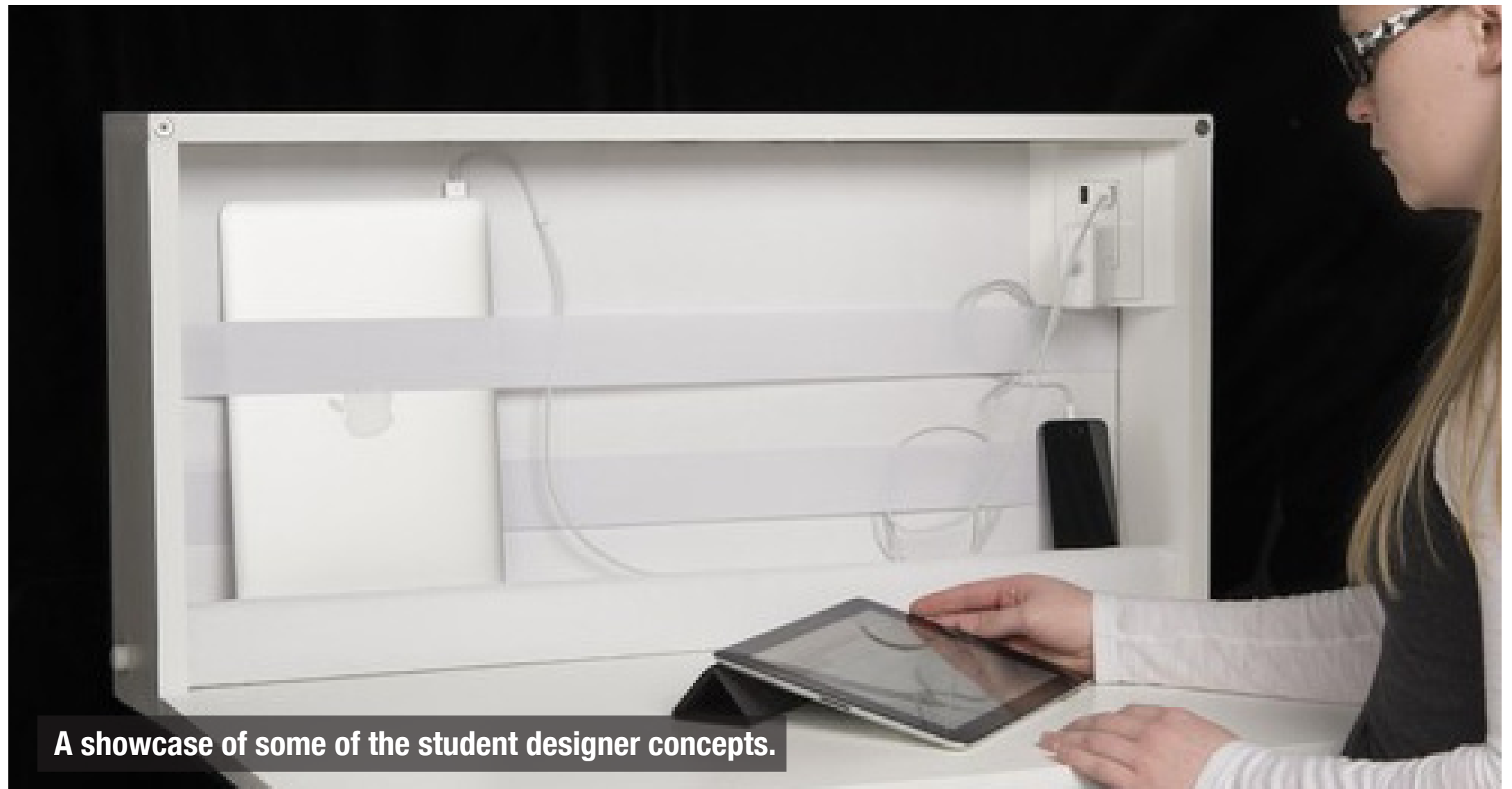
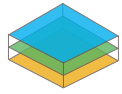
Simply put, one task chair becomes two. This chair can provide an ergonomic experience for one user or divide in half to share the seat with someone who wants to meet or chat.



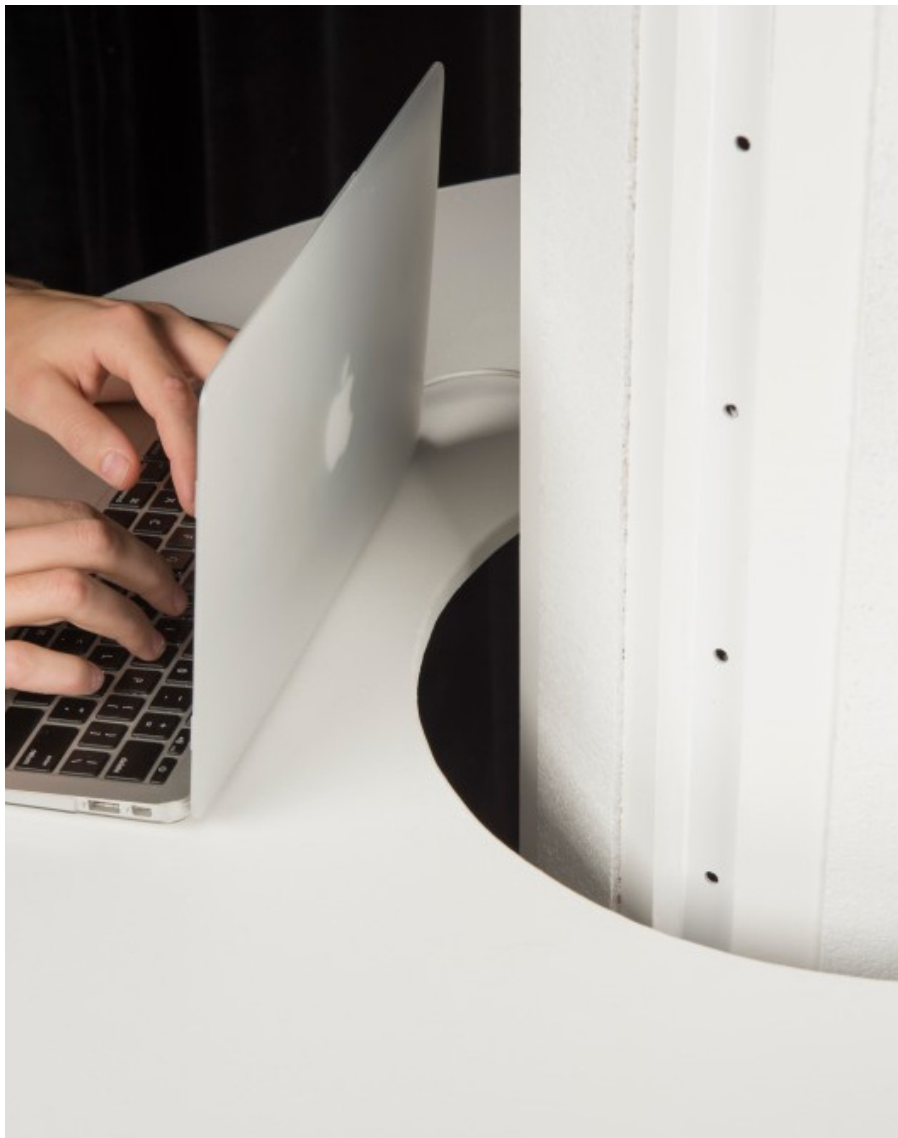
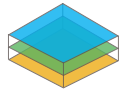
Food and meetings go hand in hand. You need something to snack on during long brainstorming sessions or work-sessions. This table provides washable, removable work surfaces that can be used to hold snacks.



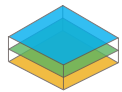
Taking a private phone call in an office is an incredibly difficult challenge to solve for. This finalist designed a minimal acoustical screen that can interface against a wall or in a corner.



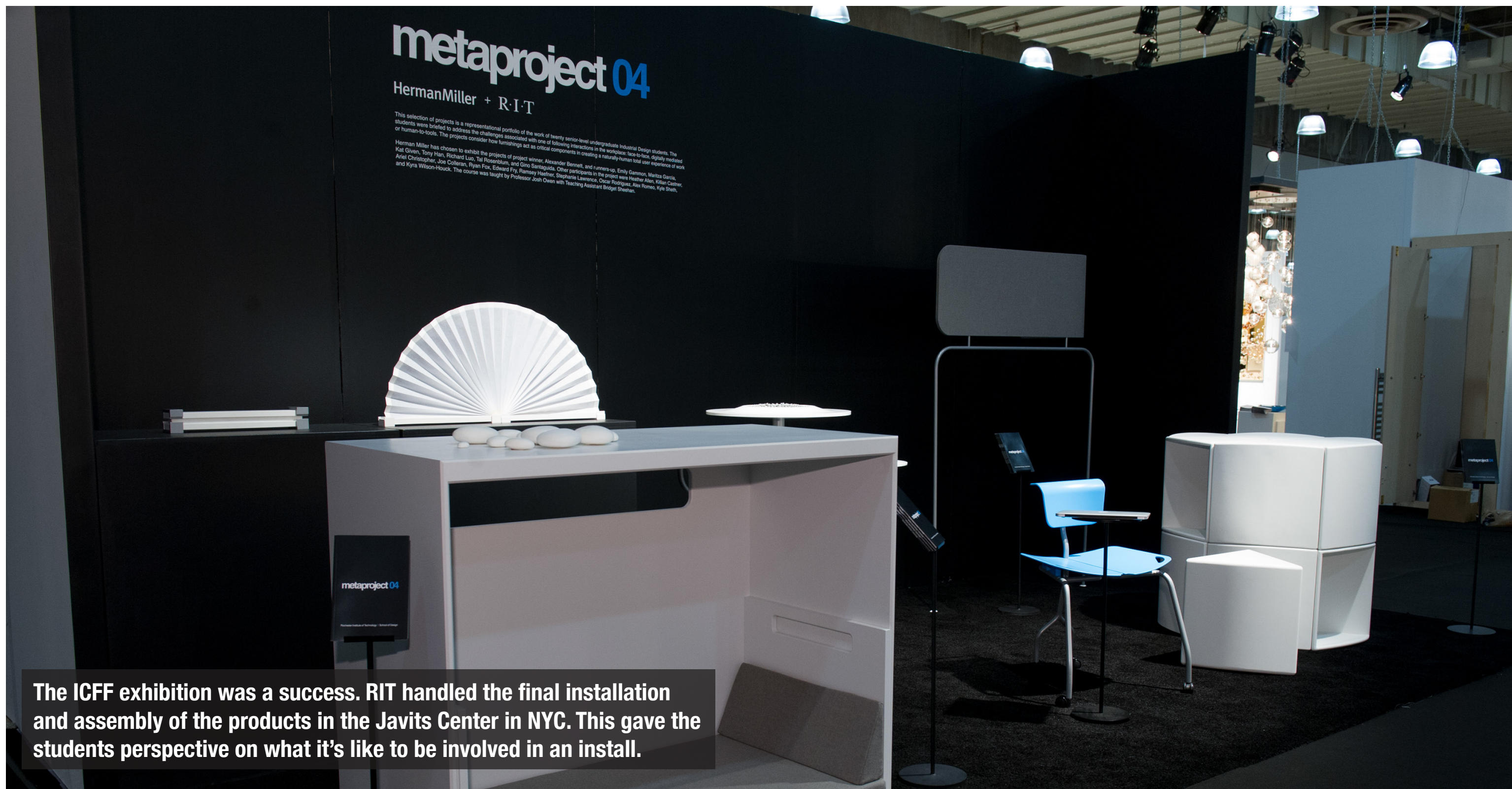
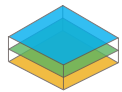
A showcase of some of the student designer concepts.



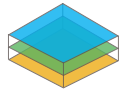
The RIT Innovation Center housed the final student presentation and critique, including Herman Miller judges on hand to see the work in-person. The venue was a perfect space for a full-scale furniture showing.

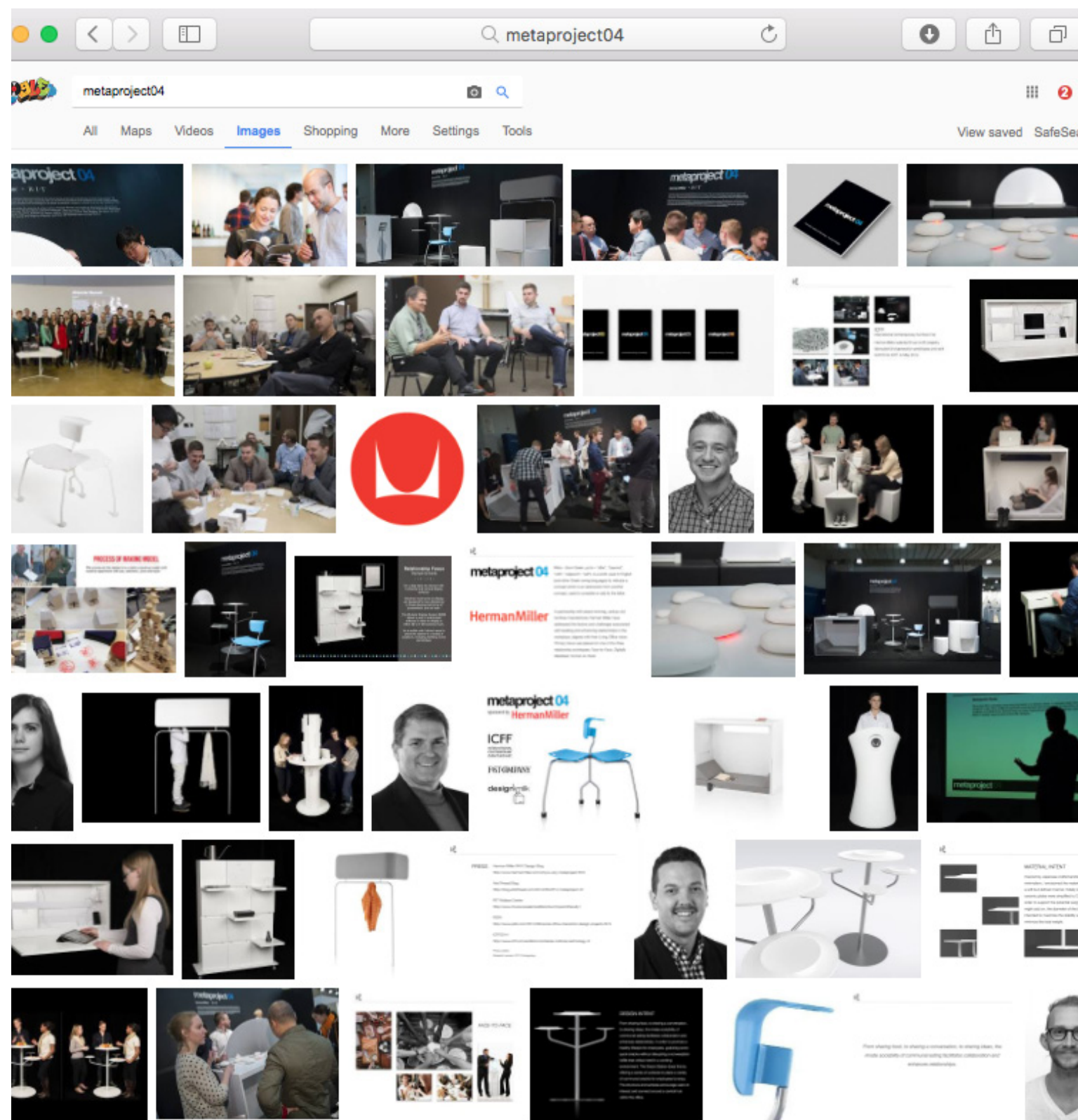
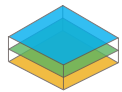


Two finalist discuss their designs with an attendee at ICFF in New York City. The students were present at their exhibit space for the three day of show activity.

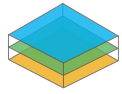


The ICFF exhibition was a success. RIT handled the final installation and assembly of the products in the Javits Center in NYC. This gave the students perspective on what it's like to be involved in an install.





The project received worthy press and publication. RIT printed the metaproject04 books, which were perfect representations of the entire process. Google: Metaproject04, for more.

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WHY

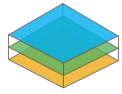
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A Very Metaproject

RIT students collaborate with Herman Miller to create designs to enhance collaboration.



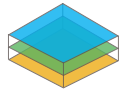
Herman Miller contracted an illustrator and commissioned writers to cover the project on their newly launched online magazine, WHY.



About

Thoughts and Reactions

A deeper dive into the reflective side of things. This is a look back on the project from a distance.



Thesis Submission

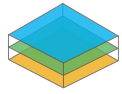
About

Design Management Reactions:

The greatest challenge was moving Herman Miller away from the idea that these designers were paid, running their own firms, or have unlimited bandwidth to focus on the project. I designed a visual communication system that I deployed throughout the Herman Miller R&D facility that promoted the project and also reinforced the pace of the effort and the demand that this would put on a student designer already managing a workload full of problem solving.

We knew that asking designers to work at the scale of furniture requires large scale prototyping, modeling, mocking-up, and making. This means that supplies and materials add up, and personal budget and cost becomes an issue. It was for this reason that we requested that the students work in foam and paperboards. Minimizing the procurement of actual materials (expensive at low quantities) would reduce cost and increase the rapidity of prototyping. Herman Miller ultimately absorbed the cost of the final prototypes in actual finishes.

Another challenge was not having the designers in-house for extended periods of time. We lacked a way for the Herman Miller brand to naturally absorb into the designers. For this reason, we increased the collateral and language that reinforced the HMI brand and its tenets. I wanted to see end results that aligned well with the way HMI thinks as an organization, because when it comes to contract furniture, what's important to the manufacturer is important to their customers too. In the contract industry, a design is a success if/when it sells.



Thesis Submission

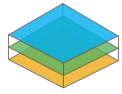
About

Commercializing a Design

Herman Miller chose not to commercialize any of the student designer's concepts. This was strictly a pipeline-based decision. At the time of the project, Herman Miller was dealing with "a pig in a python", meaning, the organization was in the midst of trying to push several large development projects into commercialization simultaneously. This happens often in the contract industry, as many products launch in the summer months, which coincided with the completion of metaproject04.

However, the design team at Herman Miller continued a conversation with one of the students beyond graduation in an effort to potentially queue them up as a full-time consultant designer for the company. It's projects like this that allow the connectivity to occur and relationships to bloom into business partnerships. I've learned that when working with an outside design firm, you want to have some shared social alignment, otherwise the design process will be riddled with issues because you never feel like you trust them.

Herman Miller has yet to commercialize ANY student designer's work. It's a challenge of personal brand and marketing. Herman Miller relies on the brands put forth by the design firms they work with- Yves Behar at fuseproject, as an example- to promote and generate pull from potential buyers. As the student designers move on from academia and begin to build their own brand, they should consider Herman Miller as an organization that they already have established a relationship and familiarity with.



Thesis Submission

About

Herman Miller R&D Survey

The Research, Development, and Design departments were polled to gauge their satisfaction with the metaproject04 initiative. Given how much time and resources were put into the project, I was interested in understanding, beyond perception, how the organization felt about the project. We received 30 opinions from people who were touched by the project at one point or another. The responses required a “yes” or “no”. The results were very positive. The opportunity to be creative and exploratory left a mark on the organization and the people who participated in the project felt like it was a worthy investment of their time.

100%

SATISFIED

“Overall, were you satisfied with the outcome of the project?”

90%

APPROVED

“Do you approve of the time, effort and resources you invested in this project?”

77%

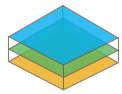
ENGAGED

“Did you feel engaged with the project throughout the entire process?”

87%

CREATIVITY

Did this project allow you to be creative and exploratory rather than typical work?”



Thesis Submission

About

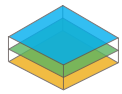
Reflecting on the Project

In hind-sight (which is always 20-20) I would've scaled the brief to produce small, desktop designs that accessorize or attach to a pre-existing furniture product. The physical scale of the models, prototypes, and general dimensioning was a constant challenge. With large furniture ideas come large cardboard models, foamcore and hot glue, and a ton of square footage to get this kind of work done. Herman Miller is lucky enough to have model shop technicians that work in this scale for a living, but for student designers, this was a constant challenge.

ICFF has become a high-design showcase event. It is no longer an event with tolerance for student work, innovation, and true product design with high function and utility. ICFF is more about the pretty objects that we put on display in our houses or offices that speak about the person we are, our style, or our status. ICFF is not truly about "design" as it related to this project. If given another chance, I would have selected a different venue to showcase the work that brings a crowd who has the ear to listen to the story behind the design, and not just the object that sits in front of them.

RIT runs on a quarter system, rather than two semesters. The coursework was condensed and we weren't able to extend the project into the next quarter of academic classes to keep the student designer finalist completely focused on driving their projects to the finish line. Again, a smaller-scale design brief may have helped with this.

These are very critical observations of an INCREDIBLE project and experience. But it's important to reflect on how things can be better if and when there's another chance.



Thesis Submission

About

Student Statement (Written in 2013)

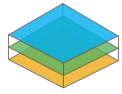
“The hype of Metaproject as an educational initiative has grown since its introduction in 2011. Prior student successes heightened our knowledge and anticipation of the course. We saw it as more than a class, but instead as a unique opportunity and experience. Seeing prior winner’s work in design shops is thrilling and empowers the brand of the RIT Industrial Design department. The buildup of the course itself was only the half of the excitement. The best part was the unveiling of our corporate sponsor and being able to work with furniture design icon Herman Miller, Inc. Cooperating with such an esteemed brand was nerve-wracking in the expectations we created for ourselves. Herman Miller’s success in redefining and exploring what a workplace could be excited us. With the openness of the brief anything seemed possible.

Fortunately, we had the assistance of Dan Rucker, a Herman Miller employee and RIT ID alum, who acted as an ambassador to support our process. He also helped us to understand the philosophy of Herman Miller.

We all chose different project directions to pursue, from mobile to static, large to small. It took multiple iterations of designing and redesigning our problems in order to arrive at the right paths. Often, we found ourselves outside of our comfort-zones. We all have grown over the process; we’ve expanded our experience, our communication, our problem definition, our model-making, our bonding between peers, and our empathy. For most of us, this was our first experience working with a real client and our future interactions on a professional level will benefit greatly from our experiences in Metaproject 04.

In the end, each final project felt as if it did not come from a single individual, but from a collection of efforts. Congratulations to the eight projects selected to be shown at ICFF in New York City. A special thanks to Rick Auburn for his assistance. Thank you to the professionals in the Rochester area that helped us produce our prototypes and taught us new techniques that will remain with us. A big thank you to Tony Rotman, Gary Smith, Chris Hoyt and Dan Rucker for their support and for giving us this opportunity. You made this client experience a memorable one. Thank you to Professor Josh Owen for facilitating the project and teaching us each day. Thank you to Bridget Sheehan for her never-ending encouragement and willingness to help. Thanks to Elizabeth Torgerson-Lamark and her team for their ability to capture the project in compelling imagery. Last but not least, thanks to the students in the class; the project would not have been a success without all of the hard work put in.”

Ramsey Haefner and Kyra Wilson-Houck



Thesis Submission

About

Credit:

I want to give personal thanks to Josh Owen, Stan Rickel, Lorraine Justice, Alex Lobos, and Bridget Sheehan for their direct year-round support at RIT.

I want to thank Herman Miller, the I+E Team, the Design Team, Product Management, the Model Shop, New Product Engineering, Brand Marketing, and the NYC Showroom team.

Photo Credits:

- DJR Design
- RIT CIAS Photography
- RIT Students
- Google Aggregation

Text Credits:

- www.rit.com
- www.joshowen.com
- www.hermanmiller.com
- RIT metaproject04 Course Material

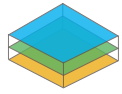


Thesis Submission

About

Resources, References, Media:

- metaproject04 Book (available through RIT)
- <http://metaproject.rit.edu/Project>
- <http://www.hermanmiller.com/why/a-very-metaproject.html>
- <http://joshowen.com/about/exhibitions>
- <http://design-milk.com/please-take-seat-invitation-chair-alexander-bennett/>
- <https://gizmodo.com/this-office-chair-was-built-for-two-butts-1585052338>
- <http://www.fastcodesign.com/3032831/8-housewares-for-improbably-tiny-spaces>
- <http://tonyhandesign.com/snack-station>
- <http://alexbenett.design/invitation-chair>
- <http://www.icff.com>



Thesis Submission

Author

Designer | Researcher | Technologist | Product Manager | Workplace Strategist



Dan Rucker

Dan has lived a life full of design, invention, and making. His professional expertise ranges from studio manager, to design consultant, to researcher, to product manager.

His most notable work in the design community was with major global design manufacturers Herman Miller and Knoll. There he worked to innovate and develop visionary digital and physical products and services, all in partnership with designers and architects. He currently works with real estate brokers and architecture firm principals to design and implement new spaces where people work, learn, heal, and live.

Educated with a BFA in Visual Communication Design, Dan began to understand the fundamental principles of design and what truly matters. Problem solving was always rooted in his academic experience. Now a candidate for his MFA in Industrial Design at RIT, Dan's appreciation for, and dedication to, the practice of design is well fortified.

Dan has a deep passion for product design, architecture, technology, workplace strategy, re-urbanization, ergonomics, UX, and social media. Outside of those passions, Dan loves his family and friends, culinary activities, bonsai gardening, aerial drone photography, golf, travel, and comedy.

Thesis Submission

Thank You

Thank you to the RIT panel for your consideration of my thesis submission.

Please contact me directly for any further discussion or commentary. I'm always open to talk about this incredible experience and my education at RIT. It has been an honor to be granted admission to RIT and I'm proud to represent and advocate for the university and it's programs in the future.

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